

Work Order ID 147157

June 03, 2016 11:17:31 AM

147157

Page 1

Item ID: D206-642-541PHI

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Repl.Skid.,High Gear,Std Wearplates Fits LH/RH, DART Tri-Bag Float Comp.

Start Date: 6/3/2016 Start Qty: 1.00

1

Cust Item ID:

Required Date: 6/20/2016 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: SH Date: 20160603 Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr

Revision Nbr

D3274-045

F

G

16-08-29

110

0.00

110

Skidtubes

Skidtubes

Skidtubes

Memo

0.13

****VERIFY AND INSPECT THE MATERIAL PRIOR TO USE****

1- remove fwd indexing ridge as per dwg D3274. Prepare for welding

2- weld fwd cap as per dwg D3274 and OSI004

AR Aluminum Rod Batch: M131562/M134442

3- grind fwd cap weld on top surface only

4- Cut AFT end of tube at 170.9" as per dwg D3274 and deburr end.

5-Drill Aft cap pilot hole using DT8025

6 -Cleco DT8025 in position and install pilot hole drill Jig DT8742A,B,C,D and DT8742. Drill 3/16" pilot holes as per Dwg D3274

7 -Remove inner indexing ridge on aft end of skidtube as per Dwg D3274 scribe batch #

8 -Open aft end cap holes to Ø0.208" as per Dwg D3274. Deburr aft end.

P.T.O.

DQA:

Date:

09/24/2016



QA Closed:

Date:

SEP 14 2016

WORK ORDER NON-CONFORMANCE / UPDATE

Work Order update only ☐

Work Order: <u>147157</u>		DISPOSITION		AGAINST DEPARTMENT/PROCESS							
Part No. <u>D206-642-541P1</u>		Rework ☒		Skid-tube ☒		Cross tube ☐		Water Jet ☐		Engineering ☐	
NCR No. <u>16-6029</u>		Scrap ☐		Machining ☐		Small Fab ☐		Prod. Eng. Coord. ☐		Quality ☐	
		Use-as-is ☐		Thermoforming ☐		Finishing ☐		Rec/Store/Packaging ☐		Other ☐	
		Suspected Unapproved ☐		Large Fab ☐		Composite ☐		Supplier ☐			
Date: <u>16-06-08</u>		Step #: <u>110</u>		QTY Effective: <u>(1)</u>				MRB (QSI042) Approval			
Description Work Order Deviation				Disposition				DAS 9 9-89 <u>16-06-08</u> Completed By <u>16-8-30</u>			
tube was cut 1" too short R.C. operator				tube can tube can be re stock and use for shorter tube replace end cut new one has per drawing and seq. 110 on work order				Lead hand / Supervisor Approval Verification DAS 9 9-89 <u>16-06-11</u>			
Root Cause				FAULT CATEGORY							
Environment ☐		No Re-verification ☐		Pressure/Forced ☐		Temperature/Cure ☐		Power Loss/Surge ☐		Positioned Wrong ☐	
Design ☐		Operator ☒		Bending ☐		Set-up ☐		Folio/Program ☐		Outside Dimensions ☐	
Doc/Data ☐		Offset/Setup ☐		Centre Not Concentric ☐		BOM/Route ☐		Grain ☐		Over/Under tolerance ☐	
Equip/Tooling ☐		Supplier ☐		Cracks ☐		Broken/Damage/Defect ☐		Weld ☐		Part Incorrect ☐	
Handling/Pre ☐		Training ☐		Crimp/Kink/Ripple/Wave ☐		Inspection Incomplete/Unqualified ☐		Wrong Stock Pulled ☐		Part Lost/Missing ☐	
Material ☐		Use for Testing ☐		Cuffs ☐		Contamination ☐		Out of Sequence ☐		Part Moved ☐	
Internal Transport ☐		Poor Information ☐		Crushing ☐		Countersink ☐		Off-set ☐		Drawing ☐	
Tribal Knowledge ☐		Rushing ☐		Heat Treat ☐		☒ Cut Too Short		Mislabeled ☐		Finish ☐	
LOA ☐		Product Improvement ☐		Wave/Twist in Tube ☐		Instructions Incomplete/Unclear ☐		Fit/Function ☐		Misread ☐	
Substation ☐		Process Improvement ☐		Marks/Chatter ☐		Drill Holes ☐		Misaligned/off center ☐		Turning Sequence ☐	
Past Expiry Date ☐		Manufacturing Process ☐		OTHER :							
Misidentified ☐		Past Due ☐									

Work Order ID 147157

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Page 2

Item ID: D206-642-541PHI**Accept*****N900040100*****Setup Start *NS1*****Revision ID:****Stop *NS2*****Item Name:** Repl.Skid.,High Gear,Std Wearplates Fits LH/RH, DART Tri-Bag Float Comp.**Start Date:** 6/3/2016 **Start Qty:** 1.00 ***1*****Cust Item ID:****Required Date:** 6/20/2016 **Req'd Qty:** 1.00 ***1*****Customer:****Reference:**

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____
QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Run Start *NR1*
Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
114	QC5- Inspect part completeness to step on W/O	0.00							
114									DAS
QC	Memo	0.00				① 16.06.11			9 9-89
Quality Control									
116	QC10- Inspect visual per QSI004- ground welds	0.00							DAS
116									9
QC	Memo	0.00				① 16.06.11			9-89
Quality Control									
120	Chemical Conversion Coat per QSI005 4.1	0.00							
120									
HandFinish	Memo	0.07							
Hand Finishing									

1 16-6-14 

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
344 B 344		344 B 344		Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

Work Order ID 147157

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Item ID: D206-642-541PHI Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Repl.Skid.,High Gear,Std Wearplates Fits LH/RH, DART Tri-Bag Float Comp.
 Start Date: 6/3/2016 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 6/20/2016 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	QC7-Inspect Chemical Conversion Coat	0.00				1	0	16-06-16	DAS 18 9-89
130									
QC	Memo	0.00							
Quality Control									
150	Skidtubes	0.00							
150									
Skidtubes	Memo	0.14							
Skidtubes	1-Open Ø0.313" and 0.375" crossbolt spacer holes as per Dwg D3274								
	2-Deburr crossbolt spacer holes as per Dwg D3274 and blow out chips from inside the tube								
	3-Bond web in place as per Dwg D3274 & QSI 015.								
	A/RSikaflex-291 <u>134743</u>								
	Sikaflex expire date: <u>16-12-8</u>								
	Start: _____ Time: <u>151100</u>								
	Finish: _____ Time: <u>151225</u>								
	(Adhere for 12 hours)								

DAS
19
9-89

DAS
19
9-89

DAS
19
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
				Completed By					
				Lead hand / Supervisor Approval Verification					
				QC / QA Coordinator Approval					

Root Cause				FAULT CATEGORY			
Environment ☐		No Re-verification ☐		Pressure/Forced ☐		Temperature/Cure ☐	
Design ☐		Operator ☐		Bending ☐		Set-up ☐	
Doc/Data ☐		Offset/Setup ☐		Centre Not Concentric ☐		BOM/Route ☐	
Equip/Tooling ☐		Supplier ☐		Cracks ☐		Broken/Damage/Defect ☐	
Handling/Pre ☐		Training ☐		Crimp/Kink/Ripple/Wave ☐		Inspection Incomplete/Unqualified ☐	
Material ☐		Use for Testing ☐		Cuffs ☐		Contamination ☐	
Internal Transport ☐		Poor Information ☐		Crushing ☐		Countersink ☐	
Tribal Knowledge ☐		Rushing ☐		Heat Treat ☐		Cut Too Short ☐	
LOA ☐		Product Improvement ☐		Wave/Twist in Tube ☐		Instructions Incomplete/Unclear ☐	
Substation ☐		Process Improvement ☐		Marks/Chatter ☐		Drill Holes ☐	
Past Expiry Date ☐		Manufacturing Process ☐		OTHER : _____			
Misidentified ☐		Past Due ☐					

Work Order ID 147157

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Item ID: D206-642-541PHI Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Repl.Skid.,High Gear,Std Wearplates Fits LH/RH, DART Tri-Bag Float Comp.
Start Date: 6/3/2016 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 6/20/2016 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp	
160	QC5- Inspect part completeness to step on W/O	0.00								
160										
QC	Memo	0.00								
Quality Control										
170		0.01								
170	Skidtubes									
Skidtubes	Memo	0.12								
	1-Bend AFT end of tube using bend prog. D3274 AFT as per dwg D3274. Install drop pins in crossbolt spacer holes to maintain web position.									
	2- DRILL PILOT HOLES ***ONLY FOR WEARPADS*** USING D3274-1T2 RED SECTIONS,** SEE PAGE 4** OPEN HOLES TO .297" . Deburr									
	3- Countersink crossbolt spacer holes as per Dwg D3274									
	4- Prepare for welding									

16-6-21 JH
16-6-22 JH

DAS
18
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐
Design	☐	Operator	☐	Bending	☐	Set-up	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐
Past Expiry Date	☐	Manufacturing Process	☐	OTHER : _____			
Misidentified	☐	Past Due	☐				

Work Order ID 147157

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Item ID: D206-642-541PHI

Accept

N900040100Setup Start ***NS1***

Revision ID:

Item Name: Repl.Skid.,High Gear,Std Wearplates Fits LH/RH, DART Tri-Bag Float Comp.

Stop ***NS2***

Start Date: 6/3/2016 Start Qty: 1.00

1

Cust Item ID:

Required Date: 6/20/2016 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
StampDAS
18
9-89

180

QC5- Inspect part completeness to step on W/O

0.00

180

QC

Memo

0.00

Quality Control

1 0 16-06-23

190

Skidtubes

0.00

190

Skidtubes

Memo

0.20

Skidtubes

1-Insert D2649 & D3275-1 crossbolt spacers. Weld as per QSI 004 and Dwg D3274. Remember to back drill each hole before welding the other side. Use aluminum rod

A/RAluminum Rod M13482616-06-233-Grind cross bolt welds flush as per Dwg D3274.
****INSPECT FOR PIN HOLES IN WELD**** 16-6-284-Counterbore 5/16" x 0.750" deep as per Dwg D3274 and deburr. 16-06-29

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : _____					

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[illegible]

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

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[illegible]

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
DART 12 688				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

Work Order ID 147157

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Item ID: D206-642-541PHI Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Repl.Skid.,High Gear,Std Wearplates Fits LH/RH, DART Tri-Bag Float Comp.
 Start Date: 6/3/2016 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 6/20/2016 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
244	Wing Walk as per dwg QSI005 4.4 Batch <u>M134748</u>	0.00							
244	HandFinish	Memo							
Hand Finishing	APPLY WING WALK WHERE INDICATED ON SHEET 4, AND ALSO FRONT CAP	0.07							201608/23 15 9-89 BFB
246	QC3- Inspect Part Finish	0.00							
246	QC	Memo							
Quality Control		0.00							x1 16-08-30 DAS 9 9-89
250	HandFinishing	0.00							
250	HandFinish	Memo							
Hand Finishing	1-Install Nut Plate as per Dwg D3274. Apply LPS-PROCYON to Nut Plate and rivets. A/RN/ALPS-PROCYON <u>M133690</u>	0.15							201608/23 BFB M
	2-Install inserts as per Dwg D3274. Use a drop of Sikaflex inside insert holes a A/RSikaflex-291 <u>M135731</u> Sikaflex expire date: <u>16/12</u>								

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Item ID: D206-642-541PHI

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Repl.Skid.,High Gear,Std Wearplates Fits LH/RH, DART Tri-Bag Float Comp.

Start Date: 6/3/2016 Start Qty: 1.00 *1*

Cust Item ID:

Required Date: 6/20/2016 Req'd Qty: 1.00 *1*

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

260 QC5- Inspect part completeness to step on W/O

0.00

260

QC

Memo

0.00

Quality Control

Inspect Nut Plate & Inserts

1 _____ EB
16-08-23

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

Work Order ID 147157

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147157

Page 10

Item ID: D206-642-541PHI Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Repl.Skid.,High Gear,Std Wearplates Fits LH/RH, DART Tri-Bag Float Comp.
Start Date: 6/3/2016 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 6/20/2016 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
270	HAND FINISHING RESOURCE #1	0.00							
270									
HandFinish	Memo	0.18							
Hand Finishing	1- Apply coat of rockguard to skidtube where wearpads are installed as per note 14 and sheet 4.								
	LET CURE BEFORE INTALLING WEARPADS								
	Rockguard batch: <u>M135064</u>								
	2-Install wearpads as per Dwg D3274.								
	3-Inspect for foreign objects as per QSI 024								
	4-Install Aft Cap and seal with Sikaflex. Clean excess adhesive.								
	A/RSikaflex-291 <u>M135231</u>								
	Sikaflex expire date: <u>16/12</u>								
	5- Fill gap with sikaflex as per dwg sheet 6, Detail L								
	A/RSikaflex-291 <u>M135231</u>								
	Sikaflex expire date: <u>16/12</u>								

① ~~1~~ DAS 15 9-89 2/16/08/23 BEB

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
2AG 2F 08-0				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

Work Order ID 147157

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147157

Page 11

Item ID: D206-642-541PHI Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Repl.Skid.,High Gear,Std Wearplates Fits LH/RH, DART Tri-Bag Float Comp.
Start Date: 6/3/2016 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 6/20/2016 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
280	QC5- Inspect part completeness to step on W/O	0.00							
280									DAS 38 9-89
QC	Memo	0.00							AUG 23 2016
Quality Control									
290	Identify as per dwg & Stock Location: _____	0.00							
290									DAS 27 9-89
Packaging	Memo	0.00							DAS 28 9-89
Packaging									AUG 25 2016
300	QC21- Final Inspection - Work Order Release	0.00							
300									DAS 21 9-89
QC	Memo	0.02							AUG 25 2016
Quality Control									

DAS
21
9-89
AUG 25 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

Picklist Print

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Page 1

Work Order ID: 147157

147157

Parent Item: D206-642-541PHI

D206-642-541PHI

Parent Item Name: Repl.Skid.,High Gear,Std Wearplates Fits LH/RH, DART Tri-Bag Float Comp.

Start Date: 6/3/2016

Required Date: 6/20/2016

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A NEW ISSUE 16.06.03 JLM VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D3274-041BENT

Manufactured No

Each 9.0000

1

D3274-041BENT

Skidtube Assembly 206

**

16-6-8

Location

Loc Qty

Loc Code

LG001

9

135462

9

D2646

Manufactured No

Each 64.0000

1

***D2646*PH1**

Aft Cap

**

16/08/23

Location

Loc Qty

Loc Code

FG

4

85848

2

90495

2

FP001

60

127924

1

136885

27

141214

32

D2649

Manufactured No

Each 146.0000

12

D2649

Cross Bolt Spacer

**

16/06/23

Location

Loc Qty

Loc Code

LG001

146

136243

97

139629

49

12

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

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Page 2

Work Order ID: 147157

147157

Parent Item: D206-642-541PHI

D206-642-541PHI

Parent Item Name: Repl.Skid.,High Gear,Std Wearplates Fits LH/RH, DART Tri-Bag Float Comp.

Start Date: 6/3/2016

Required Date: 6/20/2016

Start Qty: 1.00

Required Qty: 1.00

D3275-1 Manufactured No

Each 36.0000 12

D3275-1

Cross Bolt Spacer

**

BE1606-23
B146967 *12

Location

Loc Qty

Loc Code

LG001

36

133200

6

134013

9

136724

21

D3282-041 Manufactured No

Each 4.0000

D3282-041

Float Web (206L/407)

**

16-6-23

Location

Loc Qty

Loc Code

LG002

4

133640

4

D3285-1 Manufactured No

Each 23.0000

D3285-1

Cap

**

BE1606-08

Location

Loc Qty

Loc Code

LG001

23

121820

5

126290

18

D3415-041 Manufactured No

Each 19.0000

D3415-041

Nut Plate

**

16/08/23

Location

Loc Qty

Loc Code

FP001

19

121836

19

147137

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Shop Packet Print

Page 2

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			Completed By
					Lead hand / Supervisor Approval Verification
					QC / QA Coordinator Approval
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

Picklist Print

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Page 3

Work Order ID: 147157

147157

Parent Item: D206-642-541PHI

D206-642-541PHI

Parent Item Name: Repl.Skid.,High Gear,Std Wearplates Fits LH/RH, DART Tri-Bag Float Comp.

Start Date: 6/3/2016

Required Date: 6/20/2016

Start Qty: 1.00

Required Qty: 1.00

D3537-9

Manufactured No

Each

1.0000

9

D3537-9

Wearpad

**

2016/08/23 BEB

Location

Loc Qty

Loc Code

prelim

1

8145183

x9

137962

1

D3672-1

Manufactured No

Each

590.0000

2

D3672-1

Washer, Phenolic

**

2016/08/23 BEB

Location

Loc Qty

Loc Code

FG

10

85222

10

FP001

38

112218

38

ST049

42

127322

42

ST051A

500

134785

500

x2

ALS4-1032-130

AELS4-1032-130 Purchased

No

Each

3,992.000

40

ALS4-1032-130

Rivnut

**

2016/08/23 BEB

Location

Loc Qty

Loc Code

CCK005

2850

M134502

2850

x40

FP001

1142

M133077

140

M134502

1002

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
				Completed By					
				Lead hand / Supervisor Approval Verification					
				QC / QA Coordinator Approval					

Root Cause				FAULT CATEGORY			
Environment ☐		No Re-verification ☐		Pressure/Forced ☐		Temperature/Cure ☐	
Design ☐		Operator ☐		Bending ☐		Set-up ☐	
Doc/Data ☐		Offset/Setup ☐		Centre Not Concentric ☐		BOM/Route ☐	
Equip/Tooling ☐		Supplier ☐		Cracks ☐		Broken/Damage/Defect ☐	
Handling/Pre ☐		Training ☐		Crimp/Kink/Ripple/Wave ☐		Inspection Incomplete/Unqualified ☐	
Material ☐		Use for Testing ☐		Cuffs ☐		Contamination ☐	
Internal Transport ☐		Poor Information ☐		Crushing ☐		Countersink ☐	
Tribal Knowledge ☐		Rushing ☐		Heat Treat ☐		Cut Too Short ☐	
LOA ☐		Product Improvement ☐		Wave/Twist in Tube ☐		Instructions Incomplete/Unclear ☐	
Substation ☐		Process Improvement ☐		Marks/Chatter ☐		Drill Holes ☐	
Past Expiry Date ☐		Manufacturing Process ☐		OTHER : _____			
Misidentified ☐		Past Due ☐					

Picklist Print

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Work Order ID: 147157

147157

Parent Item: D206-642-541PHI

D206-642-541PHI

Parent Item Name: Repl.Skid.,High Gear,Std Wearplates Fits LH/RH, DART Tri-Bag Float Comp.

Start Date: 6/3/2016

Required Date: 6/20/2016

Start Qty: 1.00

Required Qty: 1.00

AN3C4A

Purchased

No

Each

1,050.000

42

AN3C4A******2016/08/23 BEB

Bolt

LocationLoc QtyLoc Code

FG

20

122814

20

M135058x42

FP001

727

M133440

7

M134396

41

M134509

6

M134606

29

M134676

44

M134762

600

OVER002

200

M134861

200

ST350

103

M134134

18

M134396

85

NAS1149C0463R

Purchased

No

Each

318.0000

1

NAS1149C0463R******2016/08/23 BEB

Washer

LocationLoc QtyLoc Code

FP001

70

m127306

70

ST260a

200

m134167

200

ST266

48

m133077

48

x1

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Shop Packet Print

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

Picklist Print

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Work Order ID: 147157

147157

Parent Item: D206-642-541PHI

D206-642-541PHI

Parent Item Name: Repl.Skid.,High Gear,Std Wearplates Fits LH/RH, DART Tri-Bag Float Comp.

Start Date: 6/3/2016

Required Date: 6/20/2016

Start Qty: 1.00

Required Qty: 1.00

NAS1149C0332R

Purchased

No

Each

3,611.000

42

NAS1149C0332R

WASHER

**

2016/08/23 BEB

Location

Loc Qty

Loc Code

FP001

1432

m132930

1004

m134073

128

m134574

300

GA

141

m133284

141

ST266

2038

m134654

38

m134736

2000

x 42

M135046

CCR264SS3-3

CCR264SS-3-03

Purchased

No

Each

0.0000

2

CCR264SS3-3

Cherry Rivet

**

B128818 2016/08/23 BEB

CR3212-4-03

Purchased

No

Each

208.0000

2

CR3212-4-03

Cherry Rivet

**

M126320 2016/08/23 BEB

Location

Loc Qty

Loc Code

ST320

208

119017

208

Each

40.0000

1

MS27039C4-06

Purchased

No

MS27039C4-06

SCREW

**

M126320 2016/08/23 BEB

Location

Loc Qty

Loc Code

ST274

40

m134889

40

x 1

M132317

x M134088

X D3537-11 / B145184

(x1)

2016/08/23

June 03, 2016 11:17:31 AM

Shop Packet Print

Page 5

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

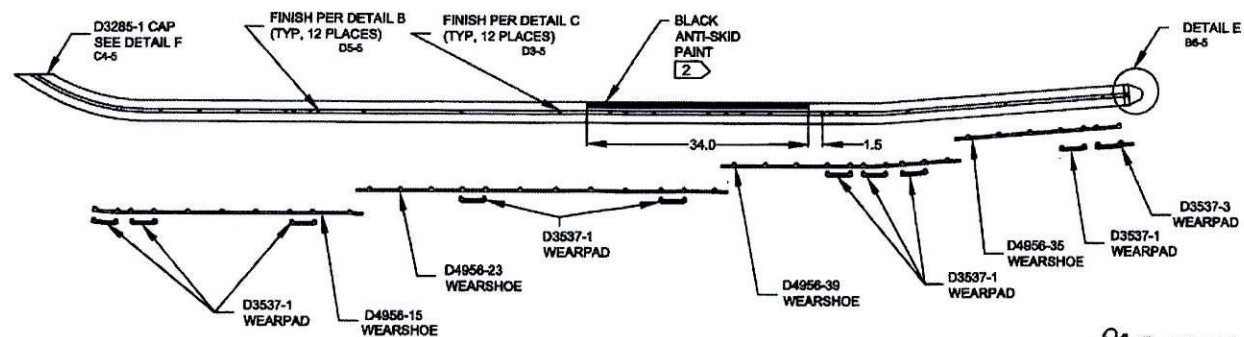
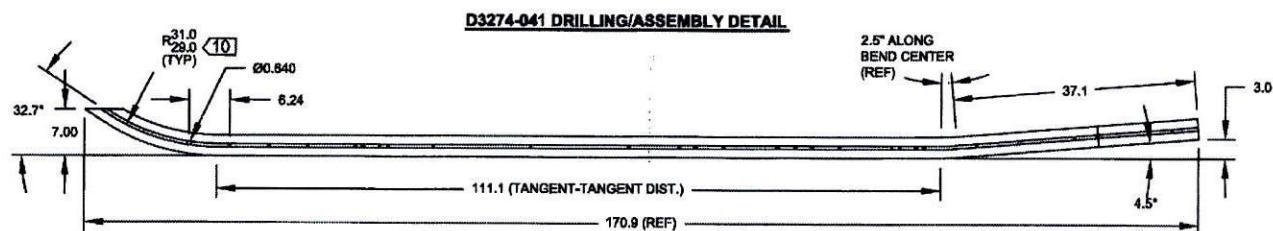
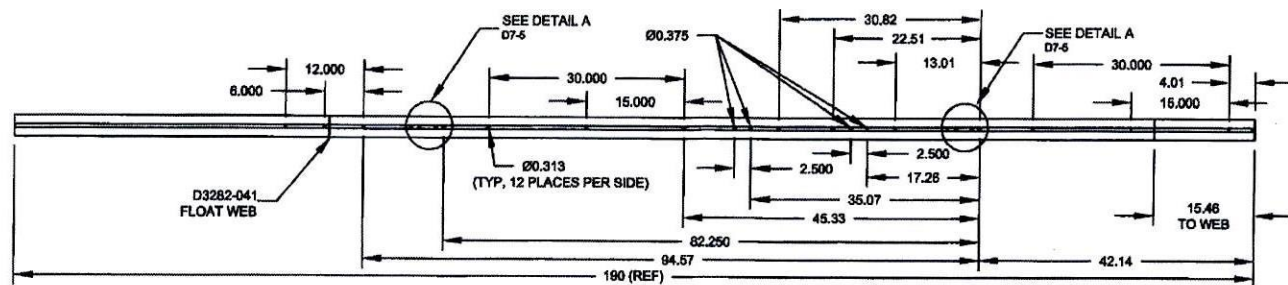
Qty	Qty	Part Number	Description
1	1	D3274-041	SKIDTUBE ASSEMBLY
1	1	D3274-043	SKIDTUBE ASSEMBLY
1	1	D3274-045	SKIDTUBE ASSEMBLY (FOR PH)
1	1	D3274-046	EXTRUSION
1	1	D3274-047	AFT CAP
1	1	D3274-048	CROSS BOLT SPACER
1	1	D3274-049	CROSS BOLT SPACER
1	1	D3274-050	FLOAT WEB
1	1	D3274-051	CAP
1	1	D3274-052	RING
1	1	D3274-053	NUT PLATE
1	1	D3274-054	WEARPAID
1	1	D3274-055	WEARPAID
1	1	D3274-056	WEARPAID
1	1	D3274-057	WEARPAID
1	1	D3274-058	WEARPAID
1	1	D3274-059	WEARPAID
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1	1	D3274-067	WEARPAID
1	1	D3274-068	WEARPAID
1	1	D3274-069	WEARPAID
1	1	D3274-070	WEARPAID
1	1	D3274-071	WEARPAID
1	1	D3274-072	WEARPAID
1	1	D3274-073	WEARPAID
1	1	D3274-074	WEARPAID
1	1	D3274-075	WEARPAID
1	1	D3274-076	WEARPAID
1	1	D3274-077	WEARPAID
1	1	D3274-078	WEARPAID
1	1	D3274-079	WEARPAID
1	1	D3274-080	WEARPAID
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1	1	D3274-082	WEARPAID
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1	1	D3274-098	WEARPAID
1	1	D3274-099	WEARPAID
1	1	D3274-100	WEARPAID

GENERAL NOTES:

1. MATERIAL: N/A
2. FINISH: N/A
3. TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
4. UNITS: INCHES UNLESS OTHERWISE NOTED
5. BREAK SHARP EDGES 0.005 TO 0.010 MAX
6. IDENTIFICATION: N/A
7. WEIGHT: FOR -041/043 = 37.5 LBS
FOR -045 = 33.4 LBS
8. WELDING TO BE DONE PER DART QSI 004.
9. ALL HOLES DRILLED ON CENTERLINES.
10. DAMAGE TOLERANCE ON FWD BEND: THERE SHOULD BE NO VISIBLE WRINKLES IN THE BEND FROM THE GROUND TO A HEIGHT OF 7 INCHES ABOVE THE GROUND. IT IS ACCEPTABLE TO POLISH OUT GOUGES UP TO 0.007" DEEP IN THE BENT PORTION OF THE TUBE. A MAXIMUM REDUCTION IN DIAMETER OF 0.100" IS ACCEPTABLE IN THE BENT PORTION OF THE TUBE.
11. BOND D3274-041 FLOAT WEB INTO D3274-1/3 OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241/281 ADHESIVE PER DART QSI 016. ENSURE HOLES LINE-UP.
12. DRILL 60/287 HOLES FOR AL57-1032-130 INSERTS USING DT3274-172 BEFORE FINISH. INSTALL AL57-1032-130 INSERTS AFTER FINISH. SEAL WEARSHOE BOLTS WITH SIKAFLEX-241/281. ON -046, DO NOT DRILL HOLES FOR WEARSHOE BOLTS. LONG WEARSHOE BOLTS ARE USED FOR LONG WEARSHOE BOLTS.
13. COAT ALL EXPOSED FASTENERS WITH ANTI-CORROSION "LPS PROCOYON" AFTER FINAL ASSEMBLY. CLEAN EXCESS GREASE WITH WASH N' WAX DEGREASER.
14. ON -046, APPLY COAT OF ROCKGUARD TO SKIDTUBE WHERE WEARPADS ARE INSTALLED.

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PRELIMINARY 2016.05.16

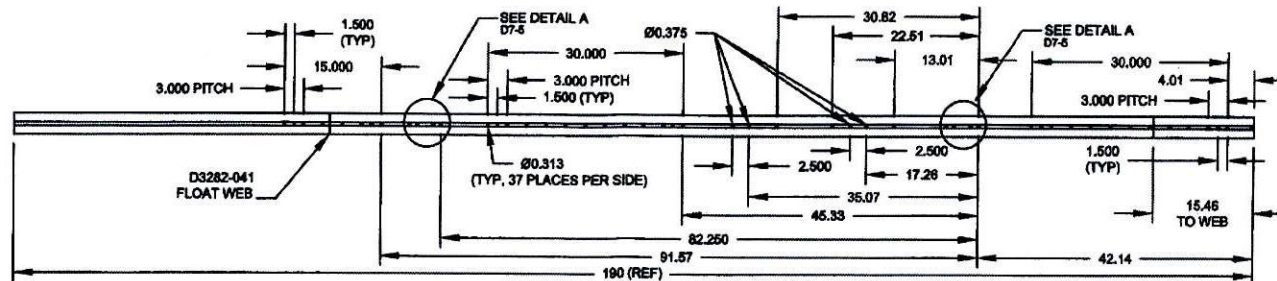
REV.	DESCRIPTION	DATE
G	ADD -045 CONFIGURATION (FOR PH) ZN AL5-A, AS-8 REVISE NOTE 2, 7 & 12, ADD NOTE 14 (ZN AS-1)	DS 16.04.25
F	REVISE NOTE 2: ADD ANTI-SKID PAINT, REMOVE GASKETS PER IN-D206-642 REV C	DB 14.04.15
E	REVISE NOTE 2: FINISH NOW PRIME/PAINT WAS POWDERCOAT, REF. PARTS-258	DW 13.05.17
D	NEW INSERTS, SS WEARSHOE + GASKET	CP 06.12.19
C	ADD -043: NEW INSERTS	CP 05.03.18
B	MOVE SADDLE HOLE: 42.14 WAS 42.78	CP 04.08.09
A	NEW ISSUE	CP 04.03.15
REV.	DESCRIPTION	BY DATE
DESIGN	CP	DATE
DRAWN	RF	
CHECKED	AK	
MFG. APPR.	JLM	
APPROVED	DS	
DE APPR.	DS	
DATE	16.04.25	
DART AEROSPACE USA, INC.		
EUGENE, OR		
DRAWING NO. D3274		
SHEET 1 OF 6		
SKIDTUBE ASSEMBLY		
SCALE		
NTS		



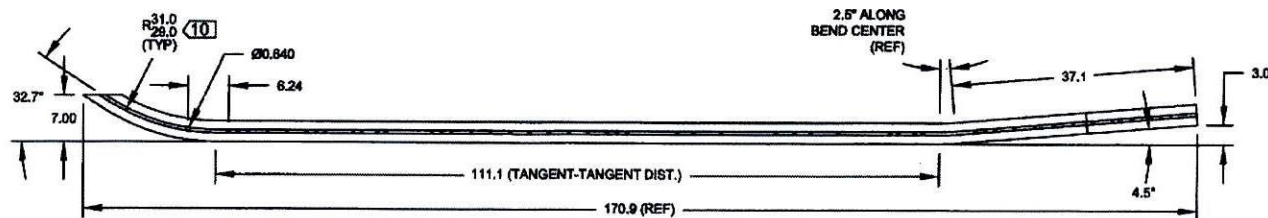
D3274-041 SKIDTUBE ASSEMBLY
(SEE DETAIL D FOR WEARSHOE INSTALLATION)

PRELIMINARY # 2016.05.16

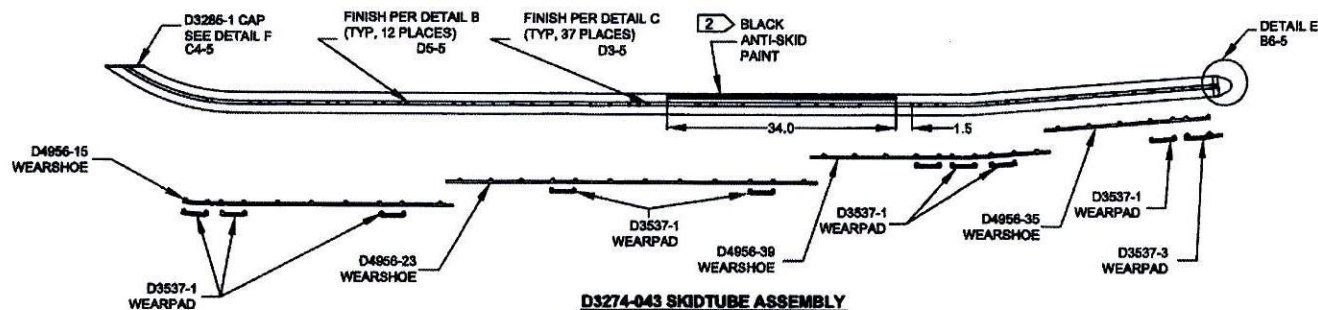
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CHECKED	AK	DRAWING NO.	REV. G
MFG. APPR.	JLM	D3274	SHEET 2 OF 6
APPROVED	DS	TITLE	SCALE
DE APPR.		SKIDTUBE ASSEMBLY	NTS
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D3274-043 DRILLING/ASSEMBLY DETAIL



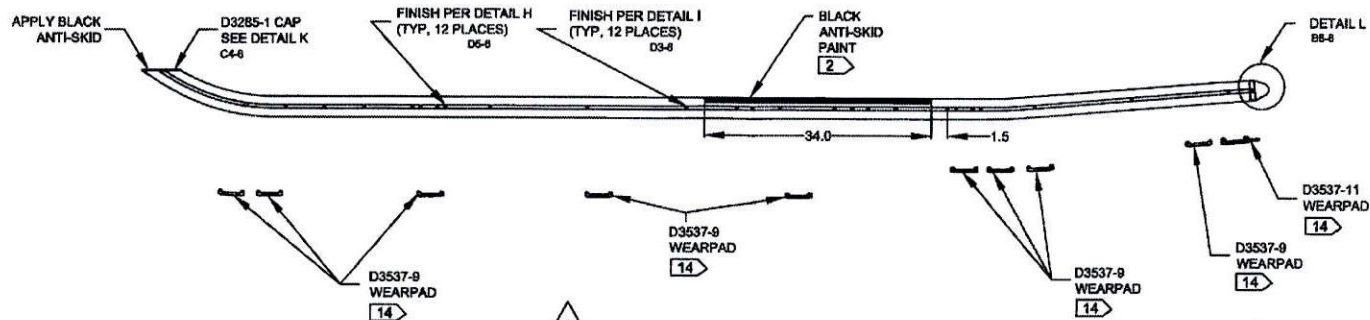
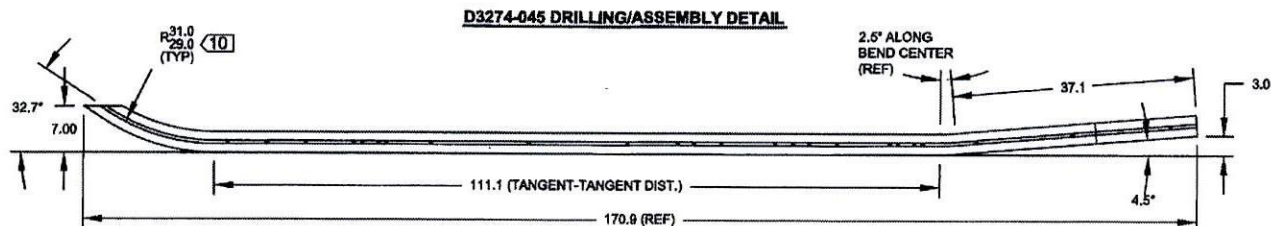
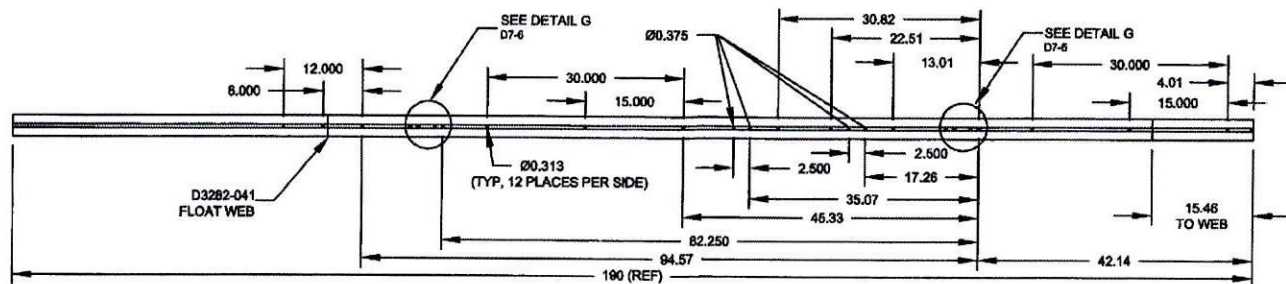
D3274-043 BEND/DRILLING DETAIL



**D3274-043 SKIDTUBE ASSEMBLY
(SEE DETAIL D FOR WEARSHOE INSTALLATION)**

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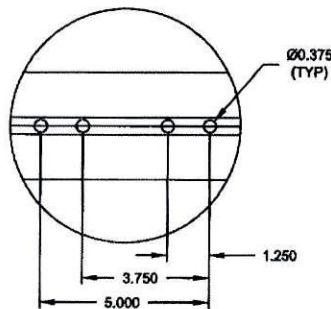


D3274-045 SKIDTUBE ASSEMBLY
(SEE DETAIL J FOR WEARSHOE INSTALLATION)

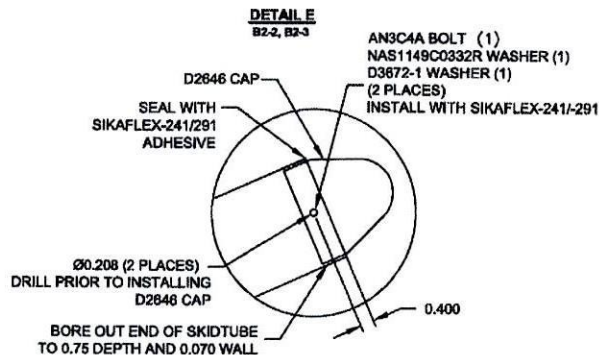
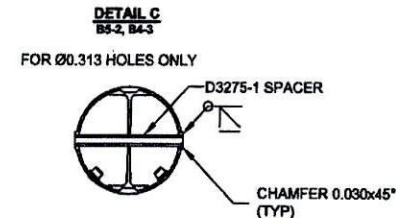
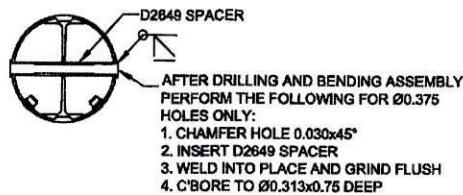
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MFG. APPR.	JLM	D3274	SHEET 4 OF 6
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DE APPR.		SKIDTUBE ASSEMBLY	NTS
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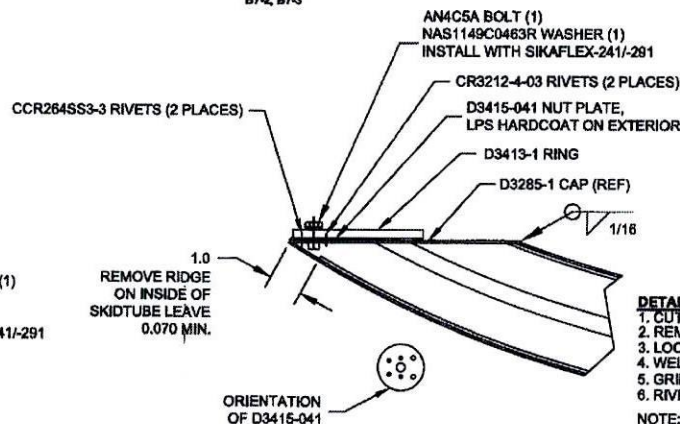
DETAIL A: DRILL DETAIL
D8-2, D9-2, D5-3, D3-3



DETAIL B
B8-2, B5-3
FOR Ø0.375 HOLES ONLY



DETAIL F: END FINISHING DETAIL
B7-2, B7-3



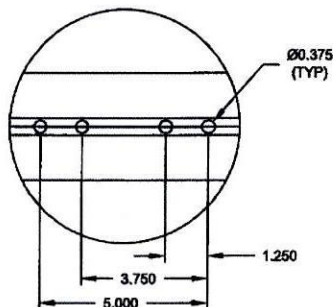
- DETAIL F NOTES**
1. CUT TUBE LEVEL
 2. REMOVE RIDGE ON FWD SIDE
 3. LOCATE D3285-1 (TRIM AS NECESSARY)
 4. WELD D3285-1 IN PLACE PER DART QSI 004
 5. GRIND FLUSH
 6. RIVET D3415-041 NUT PLATE IN PLACE
- NOTE: MASK THREADS IN D3415-041 PRIOR TO FINISH

-041/-043 DETAILS

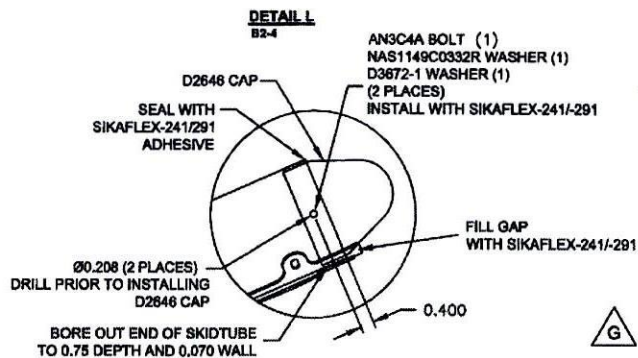
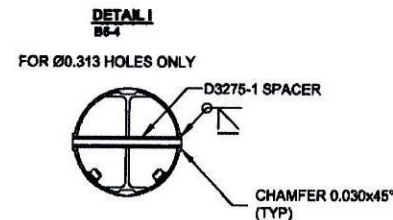
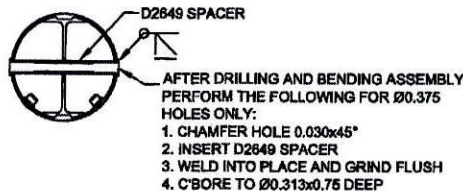
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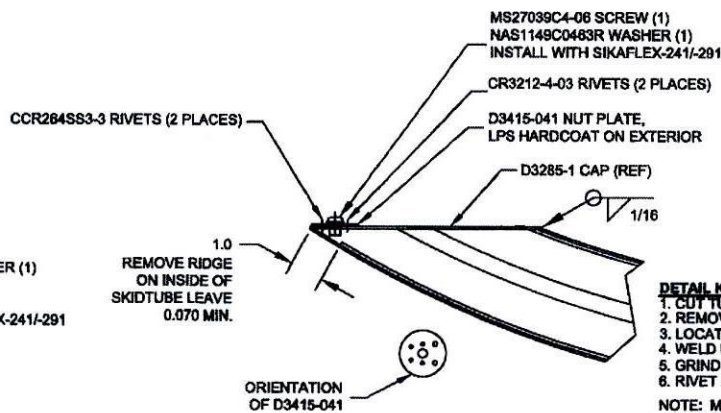
DETAIL G: DRILL DETAIL
D6-4, D3-4



DETAIL H
B6-4
FOR Ø0.375 HOLES ONLY



DETAIL K: END FINISHING DETAIL
B7-4



- DETAIL K NOTES**
1. CUT TUBE LEVEL
 2. REMOVE RIDGE ON FWD SIDE
 3. LOCATE D3285-1 (TRIM AS NECESSARY)
 4. WELD D3285-1 IN PLACE PER DART QSI 004
 5. GRIND FLUSH
 6. RIVET D3415-041 NUT PLATE IN PLACE
- NOTE: MASK THREADS IN D3415-041 PRIOR TO FINISH

G -045 DETAILS

PRELIMINARY # 246-05.16

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